

CERES Science Team Meeting

Items for Discussion - December 1999

New version of view_hdf validation tool

Changes to ERBE-like HDF data products

ERBE Nonscanner status

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view_hdf Release 2 now available

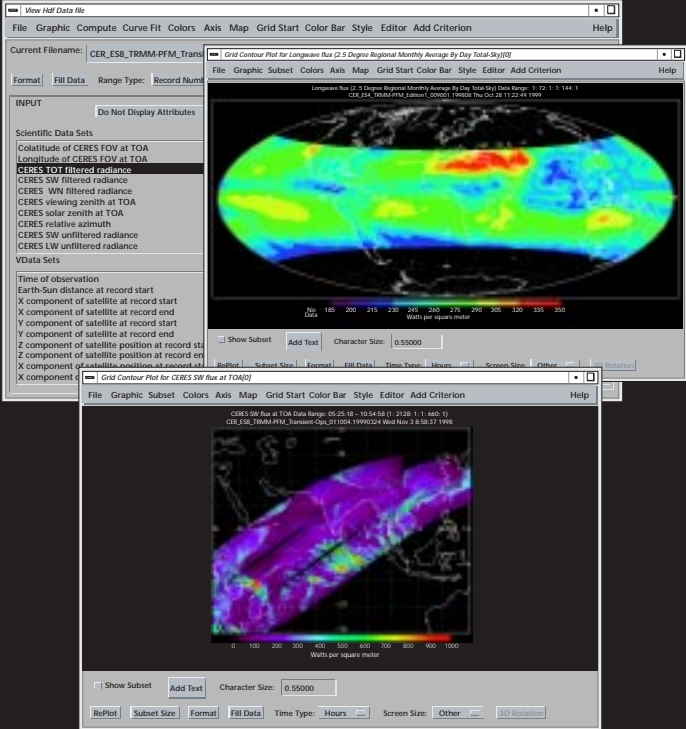
From the Langley DAAC: http://eosweb.larc.nasa.gov/HPDOCS/view_hdf.html

- Works with both HDF and HDF-EOS
- Requires IDL, Version 5 or above
- Downloadable tar files for:
 - SGI Irix
 - Sun Solaris
 - HP HP-UX
 - DEC Alpha Digital Unix
- 92-page PDF User's Guide
- New features:
 - vgroup selection
 - simple calculations
 - curve fits
 - histograms
 - remembers settings
- Working on PC version
- Cooperative effort with DAAC
 - CERES makes enhancements
 - DAAC handles distribution & support
 - Kam-Pui Lee & Linda Hunt demonstrated capabilities at several conferences

AMERICAN METEOROLOGICAL SOCIETY
80TH ANNUAL MEETING
9-14 JANUARY 2000
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Changes to ERBE-like HDF Data Products

Thanks to Suzanne Rupert at Scripps for feedback and suggestions on ES-8 format and content.

Edition2 ERBE-like Products:

- **ES-8 - Instantaneous TOA Estimates (Hierarchical Data Format - EOS swath)**
 - Proposed slope-intercept spectral correction using revised spectral response
 - Revised limit checks (e.g. raised LW TOA flux from 400 to 450 watts per square meter)
- **ES-9 - Monthly Regional Averages, and ES-4 - Monthly Geographical Averages**
 - Set regional average viewing zenith and relative azimuth to fill value if RAPS scanning
 - Re-write from HDF-EOS grid structure to standard NCSA HDF
 - Used vgroup structures for easier navigation (72 sets of space and time averaged values)
- **For ES-8, ES-9 and ES-4**
 - Changed from ERBE to CERES standard fill values
 - Added attributes for units, range and fill values for each parameter
 - Added dimension names to make Scientific Data Sets more self-describing

Revised Collection Guides:

- Overview of each product with detailed description of each parameter
- PDF format with hyperlinks and index
- http://asd-www.larc.nasa.gov/ceres/collect_guide/list.html

Daily and monthly plots available:

- Currently Edition1 - will be Edition2 after re-processing
- http://earth-www.larc.nasa.gov/erbelike/pub_cdval/

ERBE-like ES-9 and ES-4 vgroup navigation

The screenshot shows the View_HDF Version 2.1.1 interface. The main window has a menu bar (File, Graphic, Compute, Curve Fit, Colors, Axis, Map, Grid Start, Color Bar, Style, Editor, Add Criterion, Help) and a toolbar. The current filename is `/CERES/erbelike/TempES4andES9hdf/files/CER_ES4_TRMM-PFM_Edition1_009001.199807`. The interface is divided into several panels: INPUT, PROCESSING, and OUTPUT. The INPUT panel shows a list of Scientific Data Sets: Solar incidence, Net radiant flux, Longwave flux, Shortwave flux, Albedo, Geographic scene type, Longitude, and Colatitude. The PROCESSING panel shows Current Subsets: Longwave flux (2.5 Degree Regional Monthl). The OUTPUT panel shows the output path `/home/kibler/data/view_hdf_sti` and the exported data format `.dat`. Three dialog boxes are open: 'Select VGROUP' (showing 2.5 Degree Regional, 5.0 Degree Nested Regional, 10.0 Degree Nested Regional, 2.5 Degree Zonal, 5.0 Degree Zonal, 10.0 Degree Zonal, 2.5 Degree Global, 5.0 Degree Global, 10.0 Degree Global), 'Select 2.5 Degree Regional' (showing Monthly (Day) Averages, Monthly (Hour) Averages, Daily Averages, Monthly Hourly Averages), and 'Select Monthly (Day) Averages' (showing Total-Sky, Clear-Sky). The 'Subset Data' dialog box is also open, showing the subset name 'Longwave flux[1]' and the starting, ending, and increment values for the 2.5 deg. regional colat. zones and 2.5 deg. regional long. zones.

Open file with vgroups

Select spatial resolution

finally, select parameter

then, cloud coverage

next, temporal resolution

SDS dimensions defined

View_HDF Version 2.1.1

File Graphic Compute Curve Fit Colors Axis Map Grid Start Color Bar Style Editor Add Criterion Help

Current Filename: `/CERES/erbelike/TempES4andES9hdf/files/CER_ES4_TRMM-PFM_Edition1_009001.199807`

Format Fill Data Range Type: Record Number Screen Size: 1036x540 Time Type: Hours With Criterion

INPUT Do Not Display Attributes

PROCESSING Remove Subset(s)

OUTPUT: `/home/kibler/data/view_hdf_sti`

Exported Data: `.dat`

None

Scientific Data Sets

- Solar incidence
- Net radiant flux
- Longwave flux
- Shortwave flux
- Albedo
- Geographic scene type
- Longitude
- Colatitude

Current Subsets

- Longwave flux (2.5 Degree Regional Monthl)

Select VGROUP

- 2.5 Degree Regional
- 5.0 Degree Nested Regional
- 10.0 Degree Nested Regional
- 2.5 Degree Zonal
- 5.0 Degree Zonal
- 10.0 Degree Zonal
- 2.5 Degree Global
- 5.0 Degree Global
- 10.0 Degree Global

Select 2.5 Degree Regional

- Monthly (Day) Averages
- Monthly (Hour) Averages
- Daily Averages
- Monthly Hourly Averages

Select Monthly (Day) Averages

- Total-Sky
- Clear-Sky

Close

Subset Data

Subset Name: `Longwave flux[1]`

	Starting	Ending	Increment
2.5 deg. regional colat. zones:	1	72	1
2.5 deg. regional long. zones:	1	144	1

Done Reset Cancel

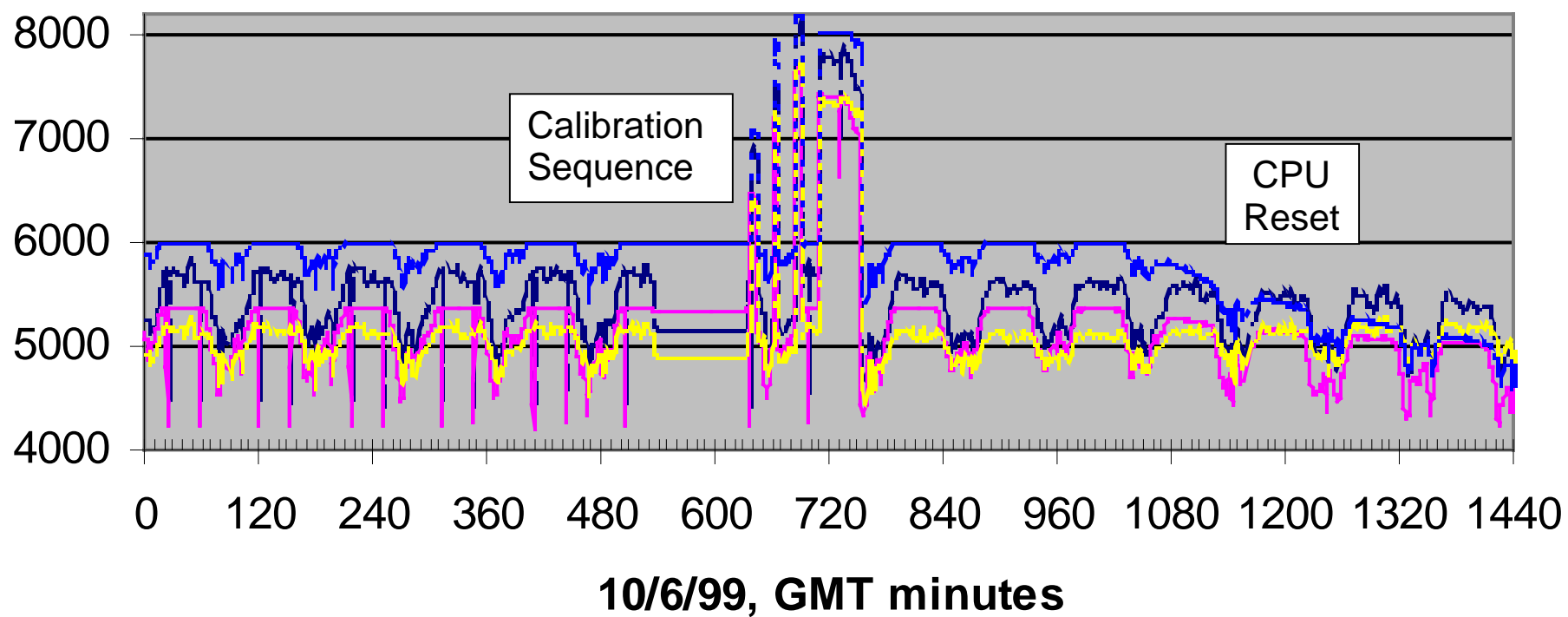
ERBE Nonscanner still chugging along

On October 5, 1999, we celebrated the 15th anniversary of the ERBS launch with ERBE & SAGE II

On October 6, we had an anomaly:

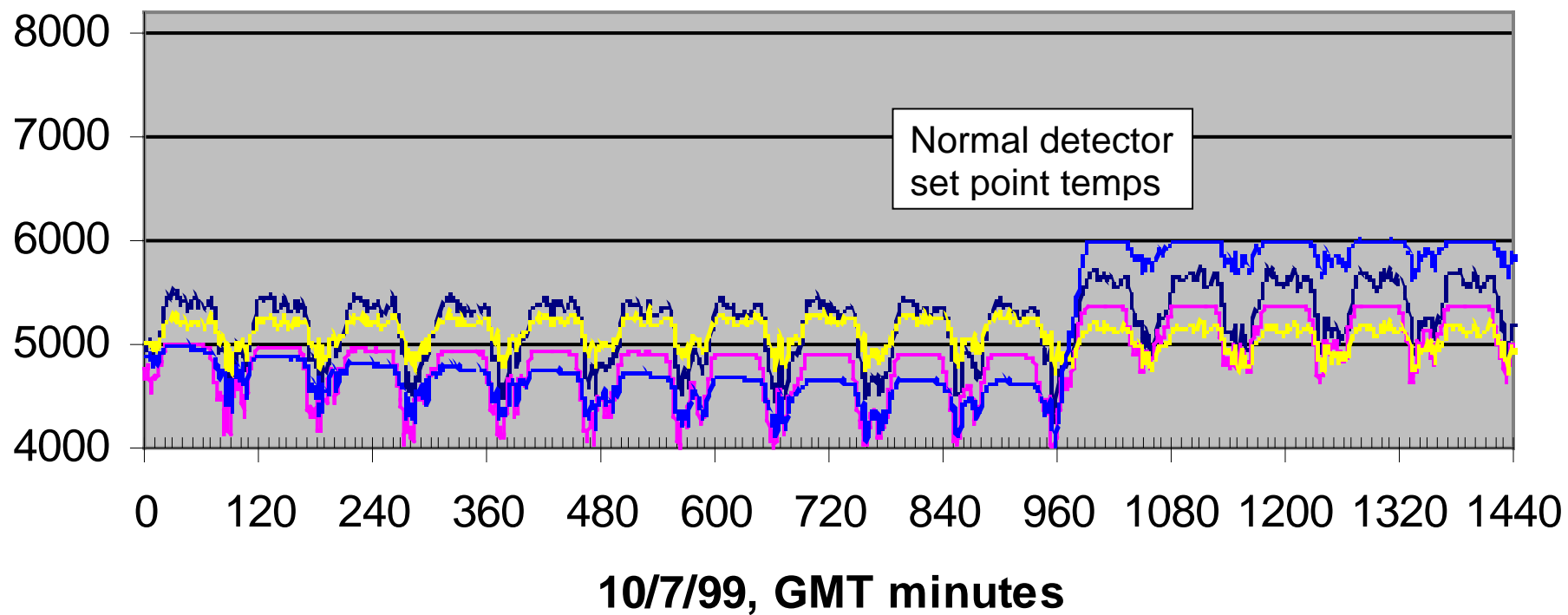
- **Performed a regularly-scheduled internal and solar calibration**
- **Elevation motor power was still on at the next real-time pass**
- **Turned off power bus and began investigation:**
 - **Erratic movement of elevation beam during calibration sequences**
 - **Earth-viewing channels radiometric response appears normal**
 - **No longer see full sun in wide-field-of-view channels at sunrise/sunset**
 - **Elevation beam is likely within a few degrees of nadir, but stuck**
- **Attempted commands to stow and to nadir with no success**
- **Current status:**
 - **Suspended future calibrations**
 - **Modified power-on and power-off procedures to remove elevation motor commands**
 - **No problems from Leonids shutdown**
- **Plan to defer further trouble-shooting until we acquire overlap measurements with CERES**
- **Plan to collect solar monitor channel measurements for comparison with upcoming ACRIMSAT**

ERBE Nonscanner Channel output, counts



--- WFOV-TOT — WFOV-SW -.- MFOV-TOT MFOV-SW

ERBE Nonscanner Channel output, counts



--- WFOV-TOT — WFOV-SW -.- MFOV-TOT ... MFOV-SW

Some URL's

Revised CERES home page with online version of brochure, links to public CERES pages

- <http://asd-www.larc.nasa.gov/ceres/ASDceres.html>

CERES TRMM Quick-look Results

- http://asd-www.larc.nasa.gov/ceres/trmm/ceres_trmm.html

Instrument Operations and Housekeeping Data Statistics

- http://earth-www.larc.nasa.gov/ceresweb/instr_pub.html

ERBE-like Public Web Page

- http://earth-www.larc.nasa.gov/erbelike/puffb_cdval/

SARB Working Group

- <http://srbsun.larc.nasa.gov/sarb/>

Surface Properties

- http://tanalo.larc.nasa.gov:8080/surf_htmls/SARB_surf.html

On-Line documentation - links to all CERES documents, data product collection guides

- <http://asd-www.larc.nasa.gov/ceres/docs.html>

Langley DAAC - has link to CERES data order tool and can download view_hdf

- <http://eosweb.larc.nasa.gov/>